

## ABSTRACT

The invention provides a security system and methods for high level transactions between devices. The system includes a non-deterministic hardware random number generator to provide multi-level encryption between a remote and host device.

1. A security system for a host device, comprising:  
a. a non-deterministic hardware random number generator;  
b. a processor; and  
c. a memory; wherein the processor is configured to:  
i. generate a random number using the non-deterministic hardware random number generator;  
ii. encrypt a transaction using the random number;  
iii. transmit the encrypted transaction to a remote device; and  
iv. receive a response from the remote device; and wherein the memory stores a plurality of random numbers generated by the non-deterministic hardware random number generator.